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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/706,492      | 11/12/2003  | Zhan Gao             | MAIKP106US          | 7215             |
| 29393           | 7590        | 05/22/2006           |                     | EXAMINER         |
|                 |             |                      |                     | RAHLL, JERRY T   |
|                 |             |                      | ART UNIT            | PAPER NUMBER     |
|                 |             |                      |                     | 2874             |

DATE MAILED: 05/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/706,492             | GAO ET AL.          |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Jerry T. Rahill        | 2874                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 27 February 2006.
- 2a) This action is **FINAL**.                                   2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 3-9 and 19-21 is/are allowed.
- 6) Claim(s) 1,2,13,14 and 22 is/are rejected.
- 7) Claim(s) 10-12 and 15-18 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 27 February 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

|   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date: _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

1. The drawings received February 26, 2006 have been reviewed and determined to facilitate understanding of the invention. The drawings are accepted as submitted.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 13, 14, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by 6,868,222 to DePue et al.

4. Regarding Claims 1 and 22, DePue et al. describes a planar optical circuit having a monolithic integrated optical component (54) associated with a planar substrate, a waveguide structure (56) configured to transfer an optical signal associated with the optical component and a scattered light system (50) operable to influence a propagation of scattered light from the optical component in a targeted manner, where the scattered light system is integrated into the planar substrate and at least partially planar with the waveguide structure (See Figure 3 and Column 4).

5. Regarding Claim 2, DePue et al. describes the scattered light system operable to deflect or divert the scattered light in a targeted manner via diffraction (see Column 4 Lines 4-17).

6. Regarding Claim 13, the scattered light system described by DePue et al. inherently acts as a light-reflecting structure because at least some portion of the light signal will be reflected at some angle due to the diffraction of the scattered light system (see Column 4 Lines 4-17).
7. Regarding Claim 14, DePue et al. describes the scattered light-reflecting structure including a trench (50) within the planar substrate.

*Allowable Subject Matter*

8. Claims 3-9 and 19-21 are allowed.
9. Claims 10-12 and 15-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
10. Claims 3-9 describes the scattered light system comprising an additional waveguide, having one end arranged in the vicinity of the scattered light source. While DePue et al. does describe additional waveguides on the substrate (see Figure 7), these waveguides all are connected to their own scattered light systems and do not have ends arranged in the vicinity of a scattered light source.
11. Claims 10-12 describe the scattered light system including a light-absorbing structure. There is no suggestion or motivation to replace the diffraction structure of DePue et al. with a light-absorbing structure.
12. Claims 15-18 describe the circuit including a plurality of waveguides and a plurality of trenches, where the trenches extend parallel to and between the waveguides. While DePue et al. does describe multiple waveguides and trenches on the substrate (see Figure 7), the trenches are connected in-line with respective waveguides. There is no suggestion or motivation to place the

light scattering trenches between the waveguides, as the trenches would cease to function as attenuators for the signals in the waveguides.

13. Claims 19-21 describe the trench terminating a monitoring waveguide local to the waveguide structure and a photodiode within the trench. DePue et al. describes only a single signal waveguide with no local monitoring waveguide or photodiode. There is no suggestion or motivation to add such structures.

***Response to Arguments***

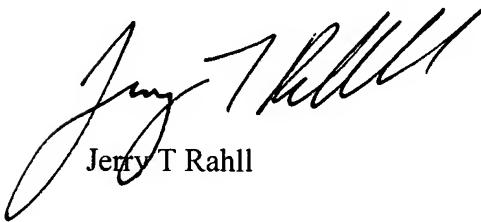
14. Applicant's arguments, received February 27, 2006, with respect to claims 1-2, 10-11, 13-14 and 22 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

16. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry T. Rahll whose telephone number is (571) 272-2356. The examiner can normally be reached on M-Th (8:30-5:30).
18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jerry T Rahll



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PRIMARY EXAMINER